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Kenneth Rust
Director, Federal Regulatory Affairs

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September 10, 1999

Ex Parte

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
The Portals
445 12th Street, S.W.
Washington, D.C. 20554

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SEP 10 1999

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Re: **CC Docket Nos. 96-45 & 97-160**

Dear Ms. Salas:

Yesterday, Ed Lowry, Pat Garzillo, Vin Callahan, Dan Harris and I, representing Bell Atlantic, and Harold Ware of NERA, met with Ted Burmeister, Bryan Clopton, James Eisner, Abdel Eqab, Katie King, Robert Loube, Richard Smith, and James Zolnierrek of the Accounting Policy Division, regarding the items captioned above. Due to the late hour at which the meeting ended, a formal notification of the ex parte presentation could not be filed until today. The attached material served as the basis for the discussion throughout the meeting.

Any questions on this filing should be directed to me at the address shown above.

Sincerely,

A handwritten signature in cursive script, appearing to read "Ken. Rust".

Attachments

cc:

T. Burmeister
B. Clopton
J. Eisner
A. Eqab

K. King
R. Loube
R. Smith
J. Zolnierrek

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**The Proposed Proxy Model Inputs Understate Costs
and Are Based on Flawed Analyses
(Summary of H. Ware and C. Dippon's Affidavit, Filed July 23, 1999)**

- **By failing to account for switch growth and upgrades, the proposed switch cost inputs understate switch investments.**
 - The proposed switch investment inputs exclude the costs of adding new lines for growth, and of upgrading switching equipment and software.
 - They reflect an unobtainable approach that assumes all switches are deployed instantaneously at a single point in time using only new lines.
 - Switch vendors offer much higher discounts for new switching capacity, than for growth lines and upgrades.
 - Thus, the inputs substantially understate switch costs.
- **Cost models and inputs must reflect that all firms operate in a world in which demand grows and shifts, and in which facilities will be upgraded, and replaced.**
 - No real firm has enough foresight to put in all of its switching capacity in advance, and never add new lines or upgrade its switches.
 - All firms must deal with uncertainty about: overall demand growth, which locations will experience growth or declines, which services customers may chose, and the speed and nature of technological innovation.
 - Thus, efficient firms accommodate growth and change by adding and upgrading capacity throughout the life of their networks.

- **If the Commission assumes there are no growth jobs—contrary to how real firms deploy switches—then it should change its assumptions about excess capacity, depreciation, and/or replacement costs. Each of these changes would raise costs:**
 - Installing only new switches, and never adding new lines for growth would require substantially more excess capacity; OR,
 - Switches would have to be replaced every few years to allow for growth. In this case, depreciation would have to be much higher; OR,
 - Every time the firm experienced enough growth to exhaust existing capacity, it would have to install a new smaller switch to handle the expected growth lines. This would require additional fixed start-up costs.

And, if LECs only deployed replacement switches:

- Discounts would be much smaller for replacement lines, because manufacturers could not count on offsetting, higher margins for growth lines.
- If all switches are to be replaced at a single time, manufacturers would not have enough capacity to do so; and trying to meet so much demand in a short time would dramatically bid up prices for equipment.

- **The switch cost study used to estimate the model's switch cost inputs understates costs and has serious flaws.**
 - The study understates costs because it excluded information regarding add-on lines and upgrade costs for new software and hardware after initial replacement.
 - The data set used in the study is not representative—it only includes selected Rural Utilities Services' data and data for 20 states for the largest LECs.
 - The data set omits key variables, including:
 - wirecenter characteristics such as usage per line,
 - switch characteristics such as concentration ratios,
 - differences between urban and rural costs such as costs of installing in high-rise buildings in congested areas,
 - and contract characteristics.

Omitted variables lead to biased estimators.

- **The NRRI cable cost study used to develop the model's cable costs has serious flaws. It should not be used.**
 - The NRRI cable costs study is based only on Rural Utilities Services' data. These data are not representative of non-rural LEC costs.
 - It ignored many of the actual costs incurred by ILECs (e.g., acquiring rights-of-way, supervision, and safety precautions).
 - It uses arbitrary allocations to estimate separate unit costs based on total project costs.
 - The data do not contain sufficient information to distinguish between costs for underground and buried cable, although the FCC Model has separate costs for each structure type.
 - The model specifications also contain a number of econometric errors. (See Sections IV C and D of our affidavit.)
- **Because the NRRI study is flawed, the Commission should not use cable cost estimates from this study. Instead, it should obtain more accurate cost inputs directly from the non-rural LECs.**
- **The FCC should use cost inputs that are as specific to each area as possible to better identify high-cost areas.**

- **Basing universal service support on a study that measures the costs of a hypothetical network sized to serve a static level of demand understates the forward-looking costs that ILECs need to recover to provide universal service.**
- **As a result of the flaws noted, using the proposed inputs and cost model as presently structured would likely generate incorrect cost estimates and, thus, lead to inefficient public policy outcomes.**

Bell Atlantic Model Inputs

- Model inputs are consistently understated
 - Cable and Wire
 - Structure Sharing
 - Switching
- Model logic is fatally flawed
- Inputs and logic produce invalid results
- Results produce questionable Public Policy

Bell Atlantic Cable and Wire

- Inputs are largely understated
 - Serving Area Interface (SAI)
 - FCC recommended inputs are lower than Bell Atlantic's and earlier FCC workshop values.
 - Right-of-way cost are not included
 - Digital Loop Carrier (DLC)
 - AT&T analysis did not include COT and RT line card cost
- Results understate Cable & Wire

Bell Atlantic Structure Sharing

- Recommended inputs are overstated
- FCC data request provided actual data
- Proposed level of sharing has never been realized in the actual network

Bell Atlantic Switching Cost

- Model switching logic fails to include growth and upgrades
- AT&T misrepresented Bell Atlantic material cost as fully installed cost
- Validation of FCC Model Switching Curve
 - Used FCC switching curve as input
 - Produced BA-NY switching offices
 - Compared actual installed cost to FCC model results
- FCC model switching curve understated switching cost by 41%

A MODEL PROBLEM

Vincent Callahan
Bell Atlantic

A MODEL PROBLEM

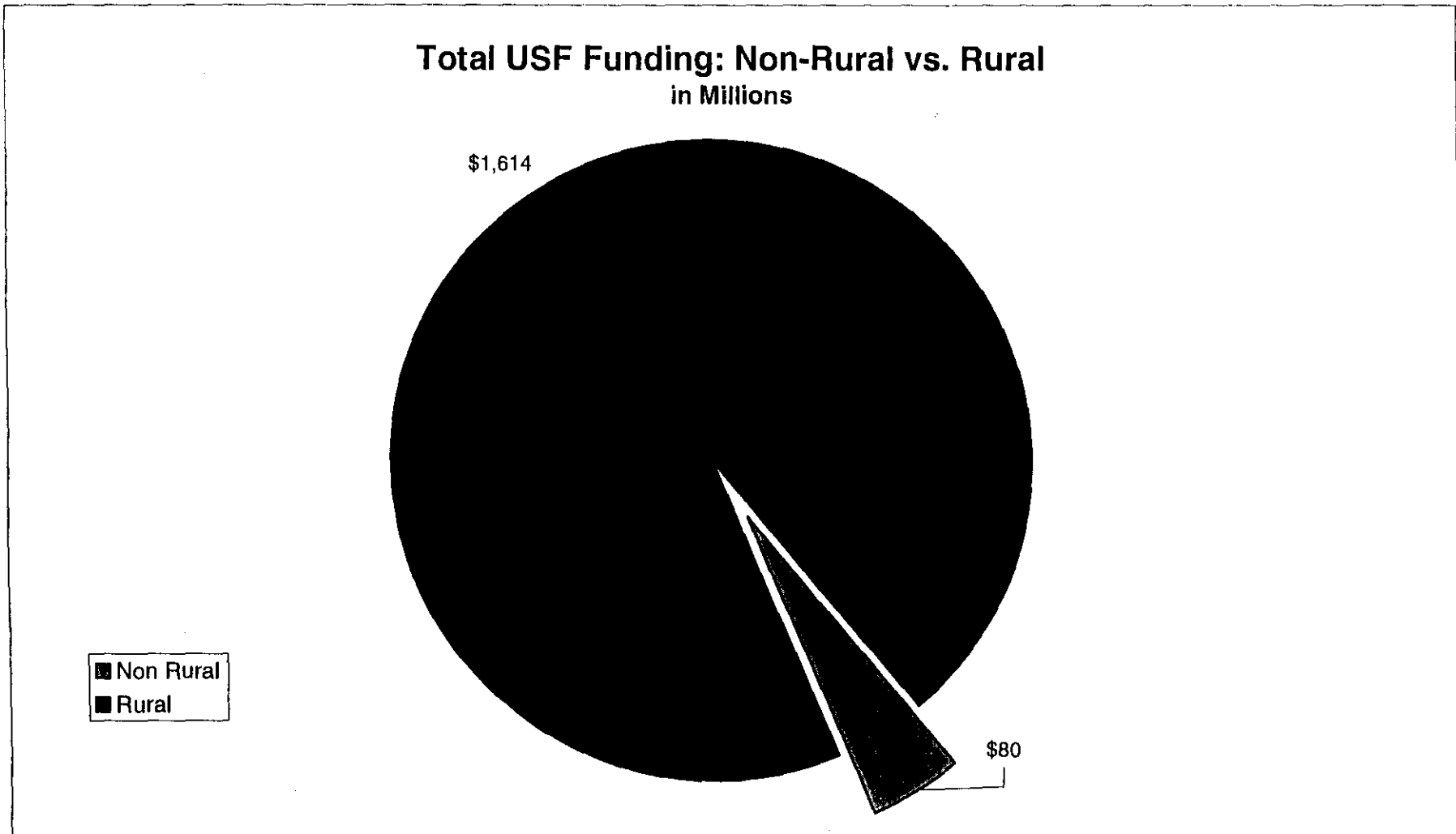
- The Size of the Problem:
 - Total Universal Service Fund = \$1.7 Billion*
 - Total Non-Rural Company Universal Service Funding = \$80 Million*

» (Attachments A-C)

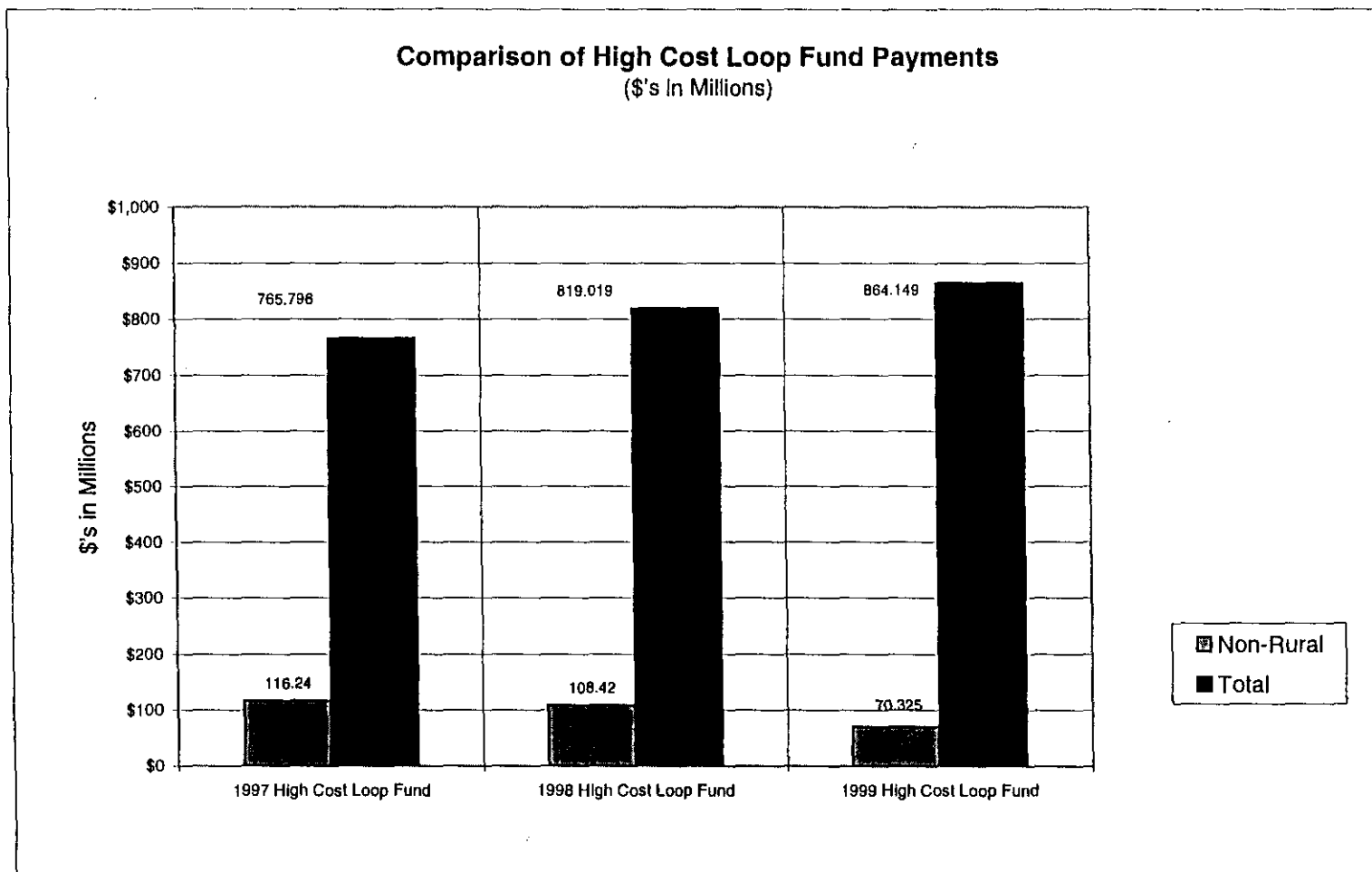
* Source: Universal Service Administrative Company's Third Quarter 1999 Report, Appendix1, 4/26/99.

**HCPM Update
USAC's 3rd Qtr. 1999 Report**

Attachment A

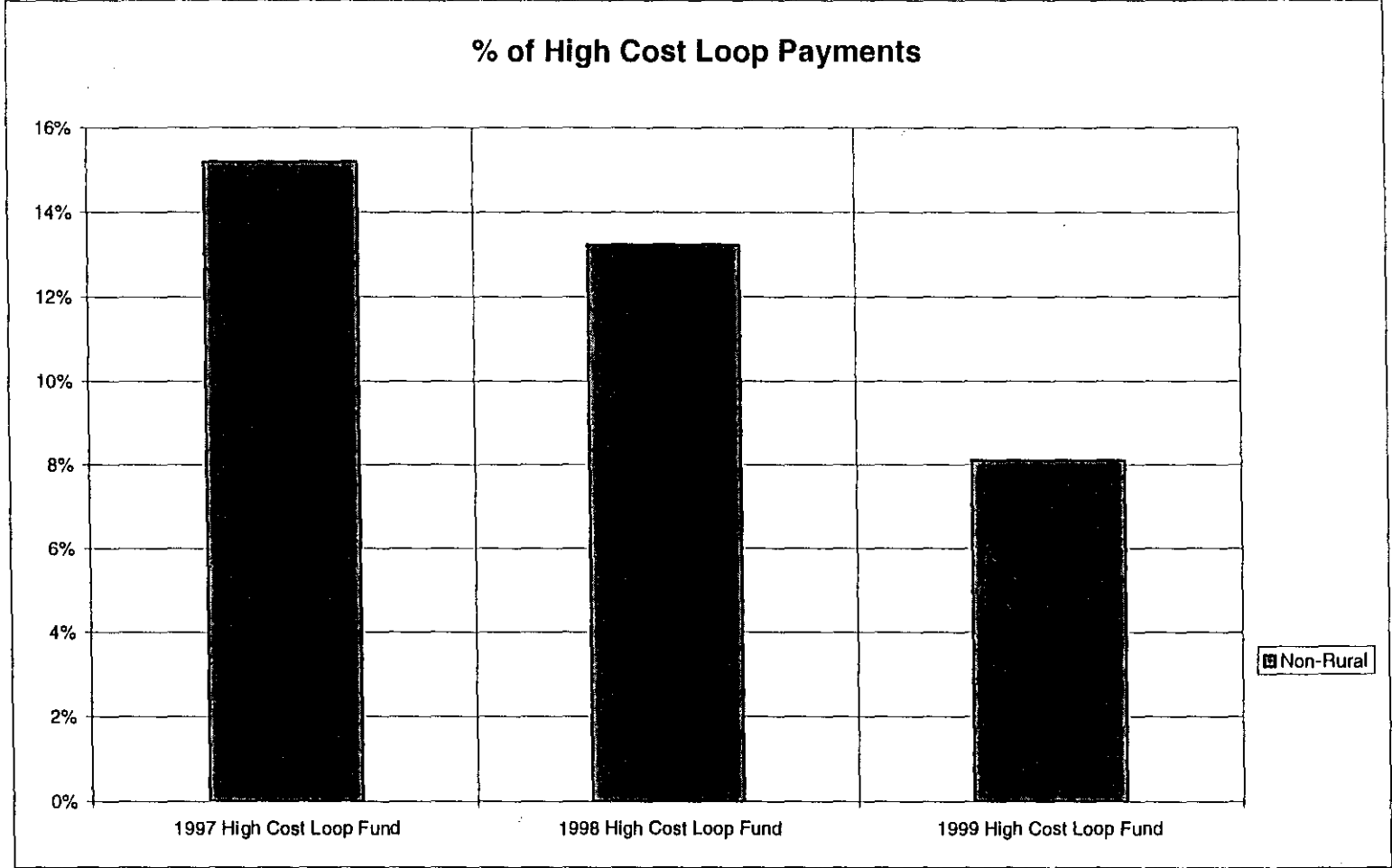


* All Puerto Rico operating companies categorized as rural.



1997 and 1998 Data Source: FCC Monitoring Report, 7/99.

1999 Data Source: USAC 3rd Quarter 1999 Fund Size Projections, 4/99.



1997 and 1998 Data Source: FCC Monitoring Report, 7/99.
1999 Data Source: USAC 3rd Quarter 1999 Fund Size Projections, 4/99.

A MODEL PROBLEM

- Can The HCPM Be Used To Size The Fund?

<u>Benchmark</u>	<u>Density Zone Annual Support</u>	<u>Wire Center Annual Support</u>
115%	\$ 2,463,244,907	\$ 5,077,192,086
125%	\$ 1,841,116,132	\$ 4,483,544,196
135%	\$ 1,404,342,402	\$ 3,987,635,682
150%	\$ 924,605,344	\$ 3,380,171,514

A MODEL PROBLEM

- Can the HCPM be used to distribute Universal Service Funding?

» (Attachment D)

**Inflow/Outflow
135% Benchmark
\$2 Per Line State Responsibility**

**Non-Rural Funding Projections
Incremental Impact by State**

**Attachment D
Interstate End-User Revenues Only**

State	Forward Looking	State Responsibility	Net Forward			Funding Difference	Incremental Outflow	Incremental Non-rural Inflow/Outflow
			Looking Support	Current Non-Rural Support	Non-Rural Hold Harmless			
AL	\$ 108,509,266	\$ 49,827,360	\$ 58,681,906	\$ 11,171,412	\$ 58,681,906	\$ 47,510,494	\$ 4,255,208	\$ 43,255,286
AR	\$ -	\$ -	\$ -	\$ 3,831,120	\$ 3,831,120	\$ -	\$ 2,571,780	\$ (2,571,780)
AZ	\$ -	\$ -	\$ -	\$ 1,952,712	\$ 1,952,712	\$ -	\$ 6,222,908	\$ (6,222,908)
CA	\$ 30,298,846	\$ 30,298,846	\$ -	\$ 5,892,408	\$ 5,892,408	\$ -	\$ 29,848,639	\$ (29,848,639)
CO	\$ -	\$ -	\$ -	\$ 2,254,764	\$ 2,254,764	\$ -	\$ 6,262,884	\$ (6,262,884)
CT	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,148,002	\$ (5,148,002)
DC	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,687,869	\$ (1,687,869)
DE	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,212,601	\$ (1,212,601)
FL	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20,631,983	\$ (20,631,983)
GA	\$ -	\$ -	\$ -	\$ 2,328,384	\$ 2,328,384	\$ -	\$ 10,033,940	\$ (10,033,940)
HI	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,270,344	\$ (1,270,344)
IA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,020,398	\$ (3,020,398)
ID	\$ -	\$ -	\$ -	\$ 935,448	\$ 935,448	\$ -	\$ 1,581,267	\$ (1,581,267)
IL	\$ 106,260,516	\$ 106,260,516	\$ -	\$ -	\$ -	\$ -	\$ 13,494,072	\$ (13,494,072)
IN	\$ 36,645,478	\$ 36,645,478	\$ -	\$ -	\$ -	\$ -	\$ 5,743,198	\$ (5,743,198)
KS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,038,165	\$ (3,038,165)
KY	\$ 51,090,749	\$ 41,275,992	\$ 9,814,757	\$ 1,269,504	\$ 9,814,757	\$ 8,545,253	\$ 3,873,216	\$ 4,672,036
LA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,206,348	\$ (4,206,348)
MA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,625,901	\$ (8,625,901)
MD	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,840,313	\$ (6,840,313)
ME	\$ 16,682,032	\$ 15,105,960	\$ 1,576,072	\$ -	\$ 1,576,072	\$ 1,576,072	\$ 1,394,713	\$ 181,359
MI	\$ 82,436,625	\$ 82,436,625	\$ -	\$ 661,776	\$ 661,776	\$ -	\$ 8,652,552	\$ (8,652,552)
MN	\$ 51,868,235	\$ 51,868,235	\$ -	\$ -	\$ -	\$ -	\$ 5,361,206	\$ (5,361,206)
MO	\$ 94,784,794	\$ 65,330,376	\$ 29,454,418	\$ 6,769,032	\$ 29,454,418	\$ 22,685,386	\$ 5,832,033	\$ 16,853,353
MS	\$ 163,779,877	\$ 29,381,064	\$ 134,398,813	\$ 7,137,924	\$ 134,398,813	\$ 127,260,889	\$ 2,545,130	\$ 124,715,759
MT	\$ 11,140,796	\$ 8,076,936	\$ 3,063,860	\$ 1,726,752	\$ 3,063,860	\$ 1,337,108	\$ 1,154,858	\$ 182,250
NC	\$ 111,159,036	\$ 93,221,880	\$ 17,937,156	\$ 8,099,088	\$ 17,937,156	\$ 9,838,068	\$ 8,759,154	\$ 1,078,914
ND	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 870,585	\$ (870,585)
NE	\$ 12,641,325	\$ 12,641,325	\$ -	\$ 812,004	\$ 812,004	\$ -	\$ 1,927,725	\$ (1,927,725)
NH	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,100,953	\$ (2,100,953)
NJ	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 13,676,185	\$ (13,676,185)
NM	\$ -	\$ -	\$ -	\$ 4,509,540	\$ 4,509,540	\$ -	\$ 2,149,813	\$ (2,149,813)
NV	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,998,189	\$ (2,998,189)
NY	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 22,661,869	\$ (22,661,869)
OH	\$ 119,444,545	\$ 119,444,545	\$ -	\$ -	\$ -	\$ -	\$ 10,504,767	\$ (10,504,767)
OK	\$ 9,021,862	\$ 9,021,862	\$ -	\$ -	\$ -	\$ -	\$ 3,473,458	\$ (3,473,458)
OR	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,050,887	\$ (4,050,887)
PA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 13,320,844	\$ (13,320,844)
RI	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,421,364	\$ (1,421,364)
SC	\$ 3,720,381	\$ 3,720,381	\$ -	\$ 5,348,724	\$ 5,348,724	\$ -	\$ 4,432,878	\$ (4,432,878)
SD	\$ 342,508	\$ 342,508	\$ -	\$ -	\$ -	\$ -	\$ 937,212	\$ (937,212)
TN	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,200,699	\$ (6,200,699)
TX	\$ 104,832,951	\$ 104,832,951	\$ -	\$ 5,399,124	\$ 5,399,124	\$ -	\$ 19,104,017	\$ (19,104,017)
UT	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,363,017	\$ (2,363,017)
VA	\$ 99,313,903	\$ 96,525,528	\$ 2,788,375	\$ 1,216,500	\$ 2,788,375	\$ 1,571,875	\$ 9,207,772	\$ (7,635,897)
VT	\$ 16,089,113	\$ 7,520,616	\$ 8,568,497	\$ 1,400,040	\$ 8,568,497	\$ 7,168,457	\$ 915,003	\$ 6,253,454
WA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,800,337	\$ (6,800,337)
WI	\$ 93,532,687	\$ 59,085,048	\$ 34,447,639	\$ -	\$ 34,447,639	\$ 34,447,639	\$ 5,005,866	\$ 29,441,773
WV	\$ 63,505,985	\$ 18,572,616	\$ 44,933,369	\$ 1,715,976	\$ 44,933,369	\$ 43,217,393	\$ 1,807,797	\$ 41,409,596
WY	\$ 17,240,895	\$ 5,422,800	\$ 11,818,095	\$ 4,503,228	\$ 11,818,095	\$ 7,314,867	\$ 746,216	\$ 6,568,651
Total	\$ 1,404,342,402	\$ 1,046,859,447	\$ 357,482,956	\$ 78,935,460	\$ 391,408,960	\$ 312,473,500	\$ 309,946,137	\$ 2,527,362
AK	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 817,284	\$ (817,284)
GU	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 133,253	\$ (133,253)
CNMI	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17,767	\$ (17,767)
PR	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,385,830	\$ (1,385,830)
VI	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 173,229	\$ (173,229)
Total	\$ 1,404,342,402	\$ 1,046,859,447	\$ 357,482,956	\$ 78,935,460	\$ 391,408,960	\$ 312,473,500	\$ 312,473,500	\$ (0)

Derived from the FCC's HCPM (6/1/99 - density zone) set with a benchmark of 135% above the national average monthly cost.

State responsibility in high cost states set at \$2.00 per line.

Current Non-Rural Support taken from USAC's Third Quarter 1999 Report, Appendix 1, 4/99.

Total End User Telephone Revenues taken from Table 10 of the State-by-State Telephone Revenue and Universal Service Data, FCC, 1/99.

A MODEL PROBLEM

A solution in search of a problem:

Current high-cost support sufficient

- High penetration rates

Non-rural support is 5% of current fund

- Percentage decreasing over time

A MODEL PROBLEM

A solution in search of a problem:

- No need to identify additional Intrastate high cost support
- A model not needed to identify Interstate (implicit) support, e.g., CALLS proposal

A MODEL PROBLEM

SUMMARY:

- Model produces unrealistic results
- Questionable need for more support
- Questionable distribution of new funds
- Potential for economic distortion and political tension
- Deal with non-rural support when treating support for rural carriers